Trauma in the Preverbal Period: Symptoms, Memories, and Developmental Impact

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Trauma in the Preverbal Period: Symptoms, Memories, and Developmental Impact

Theodore J. Gaensbauer, M.D.

In this paper, five children who experienced traumas during the preverbal period are described. The clinical presentations are oriented around three questions: (1) What are the expectable symptomatic reactions of preverbal infants to trauma? (2) To what extent and in what forms are preverbal traumatic experiences retained in memory? and (3) Does trauma in the preverbal period have enduring effects? In these five preverbal infants, symptomatology consistent with typical posttraumatic diagnostic criteria was observed. The clinical material also suggested that the capacity to encode and retain meaningful internal representations of the salient elements of a traumatic experience may be present as early as the second half of the first year of life. The developmental implications of early trauma, particularly if it is severe, appear to be significant.

The impact of trauma occurring in the preverbal period of infancy and the nature of its representation in memory have been subjects of interest for psychoanalysis as far back as Freud's classic case of the "Wolf Man," who was hypothesized to have been traumatized at eighteen months of age by witnessing parental intercourse (Freud,

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1918). More recent clinical and research studies of infants have led to skepticism about Freud's formulation of the Wolf Man's experience, exemplified by Blum's observation that "it is extremely unlikely that a child of eighteen months, with a life-threatening illness like malaria, could see anything that discretely or in the correct sequence" (**Blum, 1989**). Most contemporary writers have emphasized the influence of cumulative, emotion-laden, interactive experiences between infant and caregivers rather than specific traumatic events (**Dowling and Rothstein, 1989**; **Emde**, **1981**; **Stern, 1985**). This emphasis on relational patterns is consistent with current conceptions of the preverbal period as "prerepresentational" in nature (**Emde, 1983**), with the limitations in capacity for enduring memory formation and cognitive understanding that such a descriptive term implies. This shift in focus notwithstanding, questions about the carry-over effects of trauma from the infancy period are as relevant today as when Freud first raised them. My purpose in this paper is to provide clinical data bearing on this important area.

I will describe five children who experienced traumas of varying degrees of severity during the preverbal period. The case presentations will be oriented around three questions: (1) What are the expectable symptomatic reactions of preverbal infants to trauma, and to what extent are these reactions similar to post-traumatic symptomatology seen in older children and adults? (2) To what degree and in what forms are traumatic experiences in the preverbal period retained in memory? and (3) Does trauma in the preverbal period have enduring effects?

Symptomatology following trauma in the infancy period. On the basis of a recent review of the limited literature available and our own clinical experience, my colleagues and I hypothesized that a symptom complex similar to that documented in older children and adults could be observed in infants and toddlers, with some modifications owing to the young child's immature developmental level (Drell et al., 1993). This hypothesis was subsequently supported by the report of Scheeringa et al. (**in press**) on twelve new cases of traumatized children under the age of four. The youngest child was seventeen months, leaving open the question of whether preverbal infants would show a similar correspondence. The material presented here indicates that even prior to the onset of language fluency, symptomatology consistent with traditional posttraumatic diagnostic criteria can be observed.

Retention of memories beyond the infancy period. Perhaps the most remarkable case report of memory for preverbal trauma is that of

Bernstein and Blacher (**1967**), based on parental reports, of a twenty-eight-month-old child who was able to recall details from a pneumoencephalogram carried out at three months of age. Two recent publications have provided more systematic data on memories of early trauma. The more extensive is that of Terr (**1988**) on twenty children who had been traumatized prior to five years of age, although only two of them had been traumatized before eighteen months of age. She found that for traumas occurring prior to twenty-eight months of age verbal memories were either absent or extremely spotty. For traumas occurring after twenty-eight to thirty-six months, children could provide more detailed verbal narratives. Observing that children who were unable to provide conscious verbal recall nevertheless were able to carry out accurate behavioral enactments, Terr concluded that even at ages younger than twenty-eight months traumas create powerful and lasting visual images. She hypothesized that the child's enactments or behavioral memories derive from these "burned-in" visual imprints rather than from verbal memory.

More recently, Sugar (**1992**) compared two toddlers traumatized at sixteen and twenty-four months who already had achieved verbal fluency and were subsequently able to give detailed verbal reports with a third patient traumatized at eighteen months but prior to the onset of verbal fluency, who had only a vague visual memory. Sugar concluded that the onset of speech phrases was crucial to the child's ability to relate the event in a coherent manner, particularly in regard to time sequencing.

Current conceptions of memory functioning support the distinction made by Terr and Sugar between verbal and behavioral memory. Memory researchers have conceptualized two functionally distinct systems of memory: procedural, implicit, or early memory and declarative, explicit, or late memory. These systems are believed to be mediated by different neural pathways (**Cohen, 1984**; **Squire, 1987**; **Siegel, in press**). Procedural or implicit knowledge refers to the largely unconscious, automatically operating memory systems related to behavioral, emotional, and sensory experience (**Schacter, 1987**; **Clyman, 1991**). Declarative or explicit memory refers to knowledge that is conscious, can be recalled as coming from the past, and can be communicated to others directly. Autobiographical memory, the ability to represent oneself as having participated in a particular activity at a particular time and place in the past, has traditionally been considered a form of declarative memory (**Nelson, 1993**). Consistent with Terr's and Sugar's observations, developmental researchers have generally found that children are unable to provide descriptions of personally experienced events that occurred prior to the onset of language. With the onset of

language, children are able to verbally communicate fragments of memories for events that took place over previous months, with much cueing required. Only after approximately age three have children been found to be able consistently to provide coherent stories about personal events—that is, to develop stable autobiographical narratives (Nelson, **1990**, **1993**; **Fivush, 1993**).

An important limitation of the conclusions described above is the fact that to date clinical and research studies on autobiographical memory have depended almost exclusively on verbal retrieval. Efforts are currently underway to develop methods that do not depend on verbal retrieval to assess recall of past events in the preverbal period (**Mandler, 1990**). There is a growing literature documenting infants' capacities to recall nonverbal experiences over extended periods of time, as demonstrated by some form of behavioral recognition during re-exposure to the situation (**Rovee-Collier and Hayne, 1987**; **Daehler and Greco, 1985**). An impressive example of this literature is the report of **Perris et al. (1990**) demonstrating that children who experienced a single laboratory experiment at six months of age were able behaviorally to demonstrate retention of memory for aspects of the experience two years later.

The case reports presented below raise interesting questions about infants' capacities for memory of events in the preverbal period beyond simple behavioral recognition. They suggest that when provided with opportunities for nonverbal expression, children can give evidence that salient sensory and somatically based elements of a preverbal traumatic experience have been encoded and retained in memory over extended periods of time.

Developmental impact of trauma in infancy. While most clinicians would agree with Meissner (**1989**) that "the earliest experiences, including those of the preverbal period, antedating the advent of conscious memory, enter into the determination of evolving psychic structure and function," the manner in which such experiences might influence subsequent development remains a topic of much conjecture. Specific experiences from the infancy period have been thought to be expressed through "screen memories" (**Freud, 1899**; **Anthony, 1962**; **Rycroft, 1951**), nonverbal sensory and affective perceptions (**Isakower, 1938**; **Lewin, 1946**; **Spitz, 1955**; **Dowling, 1982**; **Lichtenberg, 1983**), dreams and visual imagery (**Niederland, 1965**; **Mack, 1965**; **Pulver, 1987**), and postural/behavioral enactments (**Deutsch, 1947**; **Anthi, 1983**; **McLaughlin, 1989**; **Dowling, 1990**). We know relatively little about the extent to which traumas occurring in the preverbal period may be capable of specific psychic representation or about the specific

mechanisms by which they may influence subsequent development. Given the availability of data about the children's psychological functioning during the years immediately following their traumas, I believe the cases reported here will stimulate valuable hypotheses about the potential influences of early trauma.

Before presenting the cases, I would like to provide some overview information. The traumas were all relatively circumscribed and predominently physical in nature. At the time of their traumas the children ranged in age from seven to fifteen months. None of them had achieved verbal fluency beyond single words. The time elapsed from the point of the traumas to my initial contact with them ranged from thirteen months to seven years. Three of the children were seen by me directly in evaluation or therapy. One of the children was seen subsequently by another therapist. In the fourth case I was consulted by the parents in the course of the child's treatment by another therapist. The fifth child I did not see directly, but I did review her medical records.

In every case there were many factors contributing to the behavior and symptoms of the children that cannot be described here. Although every attempt was made to take these multiple factors into account in organizing the material, the presentations themselves will focus on what seemed to be trauma-specific effects. One particularly relevant factor is the degree to which the children's communications were influenced by outside sources of information, particularly since verbalizations accompanying the children's descriptions and reenactments clearly reflected subsequently gained knowledge. In each case I have described what the parents told me concerning the extent to which the traumas had been discussed with the child. There were no doubt many potential sources of information and influence that I was not able to verify. Nevertheless, the ways in which the children reenacted their traumas, the contexts in which the material emerged, the associated affects and symptomatology, and the defensive operations brought into play, all suggested to me that the primary source of their communications was internalized personal experience rather than declarative knowledge obtained from outside sources.

Case Material

case 1: tommy

This case involves a child who at thirteen months of age took an overdose of pills requiring an emergency hospitalization. At twenty-six months he was able to play out specific details of the experience. Elements

of the experience were manifested in a subsequent psychotherapy which began when he was four and one-half years old.

I saw Tommy when he was twenty-five months old because of depressive symptoms associated with his father's extended hospitalization for a serious illness, precipitated by an adverse reaction to medication. At thirteen months Tommy himself had been hospitalized for an overdose of analgesic medications taken while he was in the care of a babysitter. Emergency personnel were called, with a group of firemen providing the initial intervention. He was taken to the hospital in an ambulance, accompanied by his father. While in the ambulance, he had a respiratory arrest and was given an injection of Narcon with immediate relief of symptoms. He remained at the hospital overnight with his parents in attendance. His parents did not recall any specific posttraumatic symptoms following his return home. The only indicators of stress they noted were a mild slowing of his growth rate and an intensified dependence on pacifiers over the next several months. The parents did not remember any discussions of the experience with Tommy.

In the therapy his mother and I attempted to help Tommy understand the complicated events associated with his depression. A month or so into the therapy, we were playing out a theme related to his father's hospitalization because he had taken the wrong medicines. Tommy became fascinated with a siren that was part of the toy "town" we were using to represent the hospital. As we were playing out helping the daddy doll at the hospital, Tommy took some pieces of chalk that had served as pills in a previous session and threw them in the trash along with a pillbox, saying "Bad medicine!" apparently in reference to his father's medications. Somewhat later, his mother and I were talking about another aspect of the current family situation, but Tommy did not seem interested. He kept going back to the pillbox, saying, "All gone" as he examined it. He then began playing with an ambulance.

Impressed by the purposefulness of the play, it occurred to his mother and me that he might be trying to say something about his own experience. I made a comment about Tommy having taken medicines that made him sick and then placed the toy figure that we had been using to represent Tommy on top of the ambulance. Tommy immediately began to move the ambulance along the floor in a very animated fashion. I contributed to the sense of urgency by turning on the siren, at which point Tommy spontaneously called out, "Daddy" and placed the daddy figure on the ambulance with the little boy. We proceeded to the hospital, and I introduced some doctor figures to check on the little boy. I was approaching the examination in a generic way, but Tommy clearly had something specific

in mind. He took a plastic thermometer

and rubbed the side of the baby figure's face, under the chin, and down the chest. I was puzzled, but his mother immediately recognized the play's meaning. In the emergency room, Tommy had been given charcoal, had vomited frequently over the next several hours, and had required repeated cleaning up. Following this session his parents discussed the overdose and hospitalization on a number of occasions with Tommy over the next few months.

At four and one-half years, Tommy began a two-year course of therapy with another therapist for reasons related to his parents' subsequent divorce. There were several indications from this second treatment of persisting effects from the overdose. An obvious connection was a recurrent symptom of vomiting which appeared during stress, particularly at times of separation. In two sessions play references which seemed directly related to the accidental overdose appeared spontaneously.

The first occurred approximately a year into the therapy. During the previous several months Tommy had been preoccupied with a number of themes that could potentially be understood in relation to his traumatic experience. These included feelings of being unsafe and inadequately protected by caregivers and an intense behavioral regression to an infantile level at home. He would camp outside his mother's bedroom door pretending to be a "lost puppy" wanting to be taken in. During one therapy session he played out a story about a baby whose caregivers didn't pay attention to him and who was taken away by a "jail truck." The intense concern about feeling safe seemed noteworthy in that, even though there were separation issues related to the divorce, caregiving by parents and babysitters had been consistent, and except for a brief emergency room visit at age twenty months, when he fell off a wagon and cut his finger, there had been no other episodes of risk for harm. Whenever the therapist would pursue issues of safety in the present, Tommy would not appear to be anxious and would say, "My parents always take care of me."

The specific session in which Tommy spontaneously brought up the overdose occurred shortly after the therapist's vacation. His play was again focused on themes of safety and separation. He told a fantasy story about a baby who slipped out of his mother's grasp and almost drowned. He then pretended to bring a pet to the therapist to keep because he was going away. A little later he played out that he and the therapist were married and had a baby; he explained to the therapist that they needed to watch the baby closely

because it could crawl out of bed and get into dangerous things. Following this, the therapist was assigned the role of a babysitter who got caught in a lie. Tommy then

created a train crash with injured people having to go to the hospital. At this point he abruptly interrupted the fantasy play and told the therapist that when he was a baby he had had to go to the hospital and that he had "barfed all the time" and was very sick.

While there are many possible contributions to this material, I was struck that the play themes seen both prior to and during the session (feeling unsafe, infantile regressions in the context of separations, descriptions of inattentive babysitters and babies kidnapped by "jail trucks," babies who could get into dangerous things, and people going to the hospital) seemed to have associative links to his overdose experience. A tenable interpretation was that the unconsciously experienced themes related to the overdose were brought to the surface sufficiently by the play to evoke conscious awareness of the overdose experience, which was then shared with the therapist.

Consistent with the hypothesis that feeling unsafe at times of separation from caregivers had links to his earlier experience was a sequence of play that occurred in the next-to-last session prior to termination. In this session issues of safety were again expressed. Tommy had gathered together a variety of emergency vehicles and at one point commented, "The only thing I don't have is poison control." When the therapist observed that poison control might be important, he responded, "Yeah, in case you swallow too many vitamins." The therapist interpreted, "Or too many pills," but Tommy did not give any response indicating if the play material was linked to memory.

A brief report from his parents when Tommy was seven and one-half years of age indicated that he was doing well. There were no behaviors that could be unquestionably related to his early experience. He knew he had been hospitalized but did not seem to remember the details. The only areas noted as possible carry-overs were his continued strong fascination with sirens and rescue activities, exemplified by the fact that he had chosen to be a fireman for Halloween for three consecutive years.

case 2: beth

This is the case of a child who experienced an auto accident at nine months of age and carried out an accurate play enactment of the accident thirteen months later (for greater detail see the case description in Drell, Siegel and Gaensbauer [1993]).

Beth was twenty-two months of age when I evaluated her. At nine months, she was with her mother and grandmother when their car was hit by a truck. The car rolled over, was carried over an adjacent river

embankment, and fell more than twenty feet into a dry creek bed, landing on its front and then flopping right-side-up. All three passengers suffered bruises of the face and body. Beth's mother had a broken wrist, and her grandmother had significant back pain, requiring immobilization. Beth screamed for two hours.

Following the accident, Beth showed a number of symptoms related to situations reminding her of the accident. She was very frightened of being in the car and having another accident. Once she learned the word, whenever she saw a truck nearby she would scream, "Truck, mommy, truck!" She absolutely refused to sit in the back seat of the car or in her carseat. Eating also became a serious problem. She could remain in her highchair only for brief periods before becoming restless. (I thought it probable that the highchair reminded her of the carseat.) In the thirteen months following the accident she went from the seventy-fifth percentile to below the third in weight and was hospitalized on two occasions for dehydration following viral illnesses with persistent vomiting. Other symptoms included major disruptions in sleep, with frequent fearful awakenings. At the time of our meeting she still had difficulty sleeping through the night. Separation difficulties were marked for both mother and infant. Her mother had experienced a significant posttraumatic reaction as well and did not leave Beth with anyone but her father for the next ten months. Beth's personality changed from outgoing and confident to restless and whiney, although over time the overt fussiness diminished and was replaced by a very subdued demeanor.

During the first session with Beth and her mother, Beth was initially uneasy. When she had become more comfortable, I initiated a recreation of the accident scene. I took some small doll figures to represent Beth, her mother, and her grandmother; a play automobile; a toy truck; and some flat pieces of plastic to represent the river bed and set them out as they existed prior to the accident. Beth immediately became attentive. When I asked her to show me what happened next, she carried out an accurate demonstration of what had occurred. She put the car in front of the truck, upended it on the hood of the truck, demonstrated how the car fell head first into the river bed, and completed the sequence by placing the car in its upright position on the plastic "riverbed." Having explicitly avoided any discussion of the accident with Beth, her mother was stunned by the accuracy of the portrayal. Toward the end of the session, I introduced some toy ambulances and we took

the play family to the hospital.

Immediately following the session, Beth showed and upsurge in symptoms that had specific connections to the accident. During the

night she woke up screaming twice, and for the next three weeks she awoke at last once a night. Her mother believed these awakenings involved nightmares of being injured, because she repeated the word "owies," the word she had used in the past to describe the injuries that she, her mother, and her grandmother had experienced in the accident. Her appetite diminished, and she was more withdrawn for the next week or so. She then became much more aggressive than usual and hit her mother on one occasion. There was a further example of memory of the accident four days after the first session. Beth and her mother were driving past the area where the accident had occurred and Beth called out, "Car in there!"

In our second session, three weeks later, Beth sought out the previous play materials and picked up where we had left off. She put the grandmother doll in the bed that had been used to represent the hospital and announced that grandmother had "owies." Soon after, she spontaneously recreated the accident and immediately activated the play siren. Later she brought the grandmother doll in the bed over to me and again said that the grandmother had "owies." When I asked her where, she pointed to the doll's face, stomach, and back, accurately indicating where her grandmother had been injured. We proceeded to put play bandages on these locations. She then spontaneously turned to her mother and put the play bandages on her mother's right wrist and both knees in the specific locations where her mother had been hurt.

There was a follow-up phone conversation with her mother four months after the evaluation was completed. Her mother decided not to follow through with recommendations for therapy, largely, I believe, because of her own anxiety related to the reenactment play. She stated that Beth was doing better, was more outgoing, was eating better, and had been talking more about the accident at home. Her mother felt that had been helpful to Beth.

case 3: audrey

This case involves a child who at twelve and one-half months observed the violent death of her mother and was able to play out and verbalize details of the event over the next three-and-one-half years (for discussions of the case by a number of contributors see

Gaensbauer et al. in press). A follow-up interview at age six years documented the continued impact of her traumatic loss.

Audrey was four and one-half years old when I saw her for a forensic evaluation. At twelve and one-half months, she had watched as her

mother was killed instantly in a severely mutilating fashion by a letter bomb sent by a former boyfriend (not Audrey's father). A friend of the mother's who was also injured fell to the floor screaming and died three weeks later of her injuries. Audrey was found close to her mother's body, unhurt except for some minor abrasions to her leg. Since her birth father had abandoned her mother during the pregnancy, following seven weeks of foster care she was placed with, and subsequently adopted by, one of her mother's female relatives and her husband.

On her arrival at her adoptive home, Audrey was unable to sleep, and woke up repeatedly with fearful crying. During the day she was fidgety, rocked incessantly in a self-soothing manner, and displayed intense screaming episodes lasting up to five minutes. She appeared to experience frightening, intrusive imagery, both in nightmares and in daydreams. While Audrey had not been able to describe her nightmares in detail, her adoptive mother recalled that at three years of age she awoke crying and saying, "It's messy all over!" while rubbing her head and neck. The next day she pointed to some bed sheets colored with large burgundy spots and said to her mother, "That's a bad dream." Her mother responded that the spots looked like flowers. Audrey said, "No, they're messy all over," and moved her hand in front of her. In her drawings Audrey repetitively would mix red and brown colors on the page and say, "It's icky!" In the month prior to her first visit with me, while being held she suddenly looked very terrified and said, "I'm having a bad dream about my mommy who died," but was not able to describe exactly what she was seeing.

She showed fearful reactions to a range of stimuli reminiscent of the trauma, including loud noises, Santa Claus (presumably because of the red color), rocking horses (possibly because of the vestibular sensation), fuzz- and dust-balls, flies, and on one occasion a charred piece of wood. When Audrey was two, her babysitter had a mild heart attack which required an ambulance. Audrey was so upset that she could no longer be cared for in this sitter's home, and screaming episodes, which had calmed down at that point, reoccurred for several weeks. At around age three, during the movie *Bambi,* Audrey started screaming, "Bambi's mommy shot! Bambi's mommy gone!" and couldn't bear to

watch. At age three and one-half years, at a doctor's office, she heard an ambulance siren outside and spontaneously called out, "Uh oh, Mom!" She also showed repetitive patterns of play which appeared to be behavioral reenactments. She would spin until she became dizzy and fell down, or lie on the ground and thrash back and forth with her arms and legs.

Her adoptive parents had visited with Audrey and her birth mother when Audrey was nine months old. Compared to the happy, socially

engaging infant they remembered from that visit, when she came to them she was serious and withdrawn. She was initially resistant to her adoptive parents' caretaking and showed a transient feeding disturbance. Over the first year, she became able to give and receive affection but continued to be restrained, particularly toward her adoptive father. Other symptoms observed both immediately and over time included marked separation anxiety, speech articulation problems, difficulties with peer relations, and disruptive, angry behavior, including the sadistic teasing of animals. One babysitter commented that Audrey was "like someone with two personalities in one body," sometimes sweet and loving, at other times hateful and mean.

Audrey was seen briefly in a behaviorally oriented therapy at age three and a half. Prior to that time, there had been no direct discussion of her mother because her adoptive parents had assumed she would not remember her. At the therapist's suggestion, she was told about "her mother who died." This information seemed helpful. Over the next year, Audrey made a number of spontaneous comments that indicated she had distinct memories of her mother. Her mother had had red hair and, looking at a picture on a T-shirt of a mermaid with red hair, Audrey said, "That's my mom!" Her adoptive parents asked her once if she remembered what she was doing when her mom died. Audrey said she was playing with a ball and that her balls had been red and yellow. Some time later, they saw a red and a yellow ball in photographs of the apartment where Audrey and her mother had lived prior to her mother's death. Shown the photographs and asked if she remembered where she was when her mother died, Audrey pointed to the spot where her mother's body had been found. While in the year prior to my evaluation there had been a great deal of discussion of her birth mother, her adoptive mother reported that there had been no discussion of the circumstances of her mother's death.

That the explosion and the death of her mother were still preoccupying Audrey was evident in her first session with me. Initially she pointed a gun at me. I asked her what

happens when you shoot a gun and she said, "They die." When asked what happens then, she said, "You get a hole in your stomach," and "the police come." I asked if she knew anyone who had died. She responded, "My mommy," and told me that she felt sad. I asked some direct questions about her birth mother, but she did not seem to know how to respond. She referred to the present, clearly echoing what she had been told, that "I have a mommy now," that her other mommy was happy in Heaven, and that her "mommy now" would be sad if she (Audrey) died. At one point, I asked if she remembered how her mother had died. She didn't respond

verbally but, with a dramatic shift in mood, appeared to reenact it. She jumped on an inflatable bop bag, knocked it over, and thrashed wildly back and forth on top of it in a manner similar to the repetitive play her mother had described at home. Her speech became pressured and impossible to understand.

Later in the session, after she had calmed down, I recreated a play situation reminiscent of the trauma scene, setting up dining room furniture with two female figures and a baby figure. Like Tommy and Beth had, Audrey immediately became engaged. She initially played out an affectionate scenario between the baby and one of the female figures involving cuddling and pushing the baby figure in a carriage. Suddenly, as she was holding the baby figure, she brought her hand across the scene, violently knocking over the furniture and the female doll figures. The implications of this explosive gesture left her adoptive mother in tears. When I asked what had happened and directed attention to the female figures lying on the floor, she held the baby doll within several inches of the mother figure and kept it there for several moments. She then put the baby in a bed.

Shortly after this, Audrey transferred the theme of injury into the present, showing me a scratch on her elbow and telling me she had hurt herself. A few minutes later, I returned to the play scene and, following her earlier comment that "the police come," introduced a policeman and police car. She immediately took the policeman out of the car, placed his head over the chest of the mother figure, and then stood the policeman upright alongside the "mother." Shortly thereafter, while holding the police car and policeman in her hand, she abruptly knocked down all of the remaining pieces of furniture in a repetition of the earlier explosive gesture.

After she left the session, Audrey told her adoptive mother "that doctor hurt me so bad," and described having pain in her chest, a headache, and a stomachache. Nonetheless, two days after the session, she told her mother that she wanted to come back to see "the

doctor where she played with the toys to make [her] feel better." Her mother believed that the play had been relieving to her, in that for the next two days she had been noticeably calmer and better behaved.

During our second session Audrey was visibly sad. She hid behind her mother and did not want to talk or return to the play from the previous session. She did make a connection between the last session's reenactment play and her own experience, referring to the mother doll she had focused on in the previous session as "Mommy." Only as the session was about to end did she approach the furniture. She knocked over the tables and chairs with the same backhanded motion, and then

placed the two female dolls in beds in a very nurturant way. As she was leaving she again sent the beds and the female figures flying.

Because the family lived some distance from Denver, I was not able to follow Audrey in therapy but was able to carry out follow-up interviews with Audrey and her mother fifteen months after my original evaluation, when Audrey had just turned six.

In the interim Audrey had had a two-week intensive therapeutic experience, during which she was for the first time officially informed about the exact nature of her mother's death. As she was told that her mother's former boyfriend had made a bomb and it "went boom," Audrey took her hand and pushed it sharply off her forehead (a gesture her adoptive mother had described in our initial interviews) and said that her mom didn't have any hair, or any hands, or any arms, or any legs. The possibility that there had been a loss of limbs was new information to her adoptive mother, who then called the police department where the bombing had taken place. The police confirmed Audrey's description.

The intensive therapy appeared to have been helpful. Audrey had been able to grieve more freely, contributing to a closer relationship with her adoptive mother and a significant reduction in separation anxiety and behavioral difficulties. Specific posttraumatic symptoms were few. There were still intermittent nightmares and occasional frightened reactions to stimuli having associations to the trauma, such as a recent panic reaction to a strong wind, felt by her adoptive mother to be related to the vestibular sensations. She also showed evidence of continued preoccupation with the explosion. At her fifth birthday party, Audrey had received a new playhouse. Her mother showed me photographs from the party, including the one showing how Audrey had knocked over the furniture in the dining room/kitchen area, with two female doll figures lying nearby.

Her adoptive mother's primary concern was the lack of integration of the "two Audreys," the Audrey who was happy and loving and the Audrey who was intermittently angry and wild. This split identity was one that her caregivers likely contributed to, in that, as noted above, it reflected their conceptions of the marked variations in her behavior. With her transition into early latency, one could see this conflict becoming internalized. Audrey herself would speak about "other Audreys" who were bad, and on one occasion told her adoptive mother that "Audrey" had died when her mother died. Her adoptive mother described overhearing Audrey talking to herself about doing bad things such as killing baby ducks and then countering this by saying that she would be good and not be like the ex-boyfriend. Her mother had

not seen any recent sadism toward animals, yet destructive impulses seemed still a matter of intense internal conflict. The knowledge that her mother was killed by an ex-boyfriend was creating conflict in her feelings about her father, particularly since she had had the fantasy that the ex-boyfriend had been her real father.

In my interview with Audrey, she brought me pictures she had recently drawn of the "bomb"—splotches of color on paper of the sort previously described. She explained that one of the pictures, indistinguishable to me from the others, was a picture of herself being naughty, suggesting a connection in her mind between the violent images of the trauma and her self-image of being a bad girl. Over the next fifteen minutes, as we talked about her current life, she spontaneously described three recent events (her dog having surgery, a toy house she had built with a friend which had come crashing down, and a missile which went "pop") which appeared to have unconscious links to her trauma.

During the session, Audrey completely avoided the play scene we had used the previous year and spent most of the time standing by her adoptive mother taking toys in and out of a box. I asked her directly about her memories of her mother's death, and at that point she repeated the violent gesture of the previous year, knocking over a play swingset she had been playing with. Over the next few minutes a number of things were knocked over. She did not describe any specific memories but was able to verbalize feelings in response to questions about her birth mother. She said she thought a great deal about her mother, especially at night, and that it made her sad. She said she also thought about her mother's ex-boyfriend and that she was both scared and very mad at him. Her play became more aggressive as she began shooting a dartgun at a doll figure she used to represent the boyfriend. The anger quickly spilled over as she brought in several other doll figures, including "the moms and babies," and proceeded to shoot them all.

In summary, although Audrey had made great strides, there appeared to be a number of unresolved issues interfering with her development. Feelings relating to the gruesome circumstances of the explosion appeared to be contributing to a dissociation in her sense of self, between the self preoccupied with violent images and the self that felt loved and loving. Unless this split could be healed, she appeared to be at some future risk for the dissociated acting out of destructive impulses toward herself or others. In addition, feelings of fear and anger toward her mother's ex-boyfriend were interfering with her relationship with her father and the resolution of a number of Oedipal issues.

case 4: robert

This is the case of an eight-year-old boy who at seven months of age experienced a week-long traumatic experience of physical and sexual abuse perpetrated by his birth father and who appeared to manifest a frightening reliving of his traumatic experience in a therapeutic session at age eight. His mother consulted me soon after this very disturbing session because of concerns about whether her child's behavior and verbalizations could legitimately be attributed to his early traumas, since "we were told that preverbal abuse can't be talked about." She said that Robert's birth father had not been discussed in the home because they had not wanted him to have a negative image of his birth parent. Nine months later I provided a medication consult. The material presented here reflects a compilation of information provided to me by the parents and his therapist.

At the time his mother consulted me, Robert had been in therapy for approximately a year because of severe mood swings and behavioral problems, including difficulties with attention, occasional defiance, episodes of agitation and uncontrollable crying which could last up to an hour, persisting intense separation anxiety, and sleep difficulties with frequent nightmares. Repetitive genital touching had also been noted. His primary play interests were dollhouses and Barbie dolls, and he frequently expressed the wish to be a girl.

Robert originally had come to live with his adoptive parents as a foster child at seven months of age. His birth mother was alcoholic and neglectful, and his birth father was both physically and sexually abusive. Little is known of his first months of life. When he was four months old, because of a conviction for sexual molestation of a minor, his father was ordered not to have contact with the family, and the mother entered a residential facility for single parents. When Robert was seven months old, his birth mother left him and his two siblings, aged two and three years, with his birth father for a week. There was

strong evidence that the father physically and sexually abused all of the children during this time, with absolute physical evidence of anal penetration involving his two siblings and presumptive physical evidence that Robert too had been victimized.

When his adoptive parents received him immediately after the week with his father, he was “catatonic,” didn’t want to be touched, and preferred to be left in the dark. His mother and an older sister held him almost constantly over the next several weeks before he began to accept physical affection and showed his first smile. Overall, he slept excessively, but would also awaken at night crying and would panic when his

adoptive mother entered his bedroom until he recognized her. He was terrified of men and would not let his adoptive father or older brothers comfort him. When the pediatrician tried to undress him at his first checkup, he cried and struggled to get away “as if he was possessed.” After placement, there was no further contact with his birth father. He did have weekly visits with his birth mother for the next eighteen months, supervised by a woman named Barbara. He clung desperately to Barbara during the visits.

In his therapy, much as had happened with Tommy, themes related to the early traumas seemed to build, in this case to the point of an intense emotional breakthrough. From the beginning Robert was preoccupied with frightening imagery. He described nightmares of being chased by skeletons, of “flying beds,” of being on top of a mountain that was shaking, and of ghosts and skeletons “rising.” Fantasy play involved repetitive themes of parent loss and gruesome assaults with gory details. He used a variety of defensive efforts to ensure safety and survival, both in play scenarios and in direct interactions with the therapist, such as through compulsive organizing of the office furniture and the creation of forts and safe havens. The therapist was very respectful of Robert’s needs to maintain his sense of safety and to go at his own pace.

In the several months prior to his frightening therapeutic session, Robert began to talk about his fears more directly. There were two episodes after being with babysitters when his mother found him cowering and crying in bed because of frightening daydreams that something bad had happened to him. During one of the episodes, as he was crying he said, “Don’t let him hurt me again.” In his therapy, he had been able to talk about memories of earlier fears, including fears of dying and vague but scary memories of visits to his birth mother’s house. Several weeks prior to the disturbing session he told the therapist he had had a memory of his birth father hurting him, though he did not say what the memory was. In the session immediately prior, during a play scenario, Robert for the

first time allowed the direct expression of anger toward a criminal.

On the day of his dramatic session, Robert came to the office in an angry mood because he felt he had been unjustly accused by a teacher. By coincidence, in the waiting room was a mother with a five-month-old infant. When the therapist came for him, Robert was sitting on the floor approximately two feet away from the infant, staring intensely. In the session, Robert refused to talk, played in an area away from the therapist, and then ran out of the office to his mother. When he and his mother returned, the therapist asked if anything had made him frightened.

Robert replied that he had had a scary memory about his father hurting him, like the one he had described to the therapist several weeks earlier. Suddenly, he appeared to lose touch with the present reality. He became agitated, clung to his mother, and screamed, “You’re hurting me! Why do you want to kill me!” He threw himself on the floor, sobbing hysterically. Over the next half-hour or so, he remained in what appeared to be an extreme state of dissociation. He tried desperately to crawl under the couch. At one point, as he was screaming such things as “Stop! I hurt all over! My bottom is red!” he was on his hands and knees with his rear end in the air, moving it in a very sexualized manner that communicated both an impression of anal intercourse and a chaotic sense that he did not know what to do with his body. At another point, suddenly flopping down as if his legs had been pulled out from under him and writhing on the floor, he screamed, “Don’t let him hurt me! Please don’t do that to me! I’m just a baby!”

The therapist and mother attempted to calm and reassure him, but he did not seem to recognize his mother and cried, “I don’t know you! When the big lady comes, they don’t hurt me!” His mother asked if he meant Barbara. He said, “That’s right!” and immediately crawled into his mother’s lap, clung to her, and sobbed, “Barbara, don’t let them hurt me!” During the next few minutes he crawled around his mother like a baby and eventually lay at her feet. He was finally able to calm down, the session having lasted close to two hours. On the way home, he acted as if nothing had happened, although his mother said she felt like she “had been hit with a Mack truck.” When the therapist called Robert several hours later, he seemed to have no memory of the session.

Nine months after my initial contact, in conjunction with a medication consultation, I was able to review Robert’s progress. In the immediate aftermath of the frightening session, Robert had conveyed a sense that he remembered at least parts of the session but that it was too difficult to talk about. His mother believed that the session had deeply affected

him. There had been an exacerbation in symptoms, including difficulties going to sleep because of fears of someone breaking into the house, difficulties concentrating at school, increased "girl play," and intensified compulsive behavior involving the need to organize his belongings in rigid ways. In the months following the traumatic session, Robert also had two more dissociative episodes at home of terrified screaming and loss of recognition of his mother. During one of these episodes, he screamed, "I'm getting shots in my bottom!" which his mother interpreted as his understanding as an infant of the sexual abuse. Nonetheless, both his parents and his therapist were persuaded that there had been something constructive about the frightening experience,

in that during the next sessions he seemed more directly communicative and trustful.

At the time of my medication consultation, Robert was making progress in therapy. Symptoms had improved, although they continued to fluctuate in intensity. His play had begun to shift away from themes of danger and destruction. In doll play, he had begun to express sexual curiosity and also to carry out nurturant parental activities. He also was becoming more comfortable with age-appropriate board games involving direct competition with the therapist and showed signs of an increased positive male identification, such as playing with soldiers. Concomitantly he was showing more direct physical affection toward his father at home. Despite these very positive developments, maintaining the therapeutic alliance and a sense of safety continued to be difficult. He remained fearful of men outside the family. The recent presence of a repairman in the house had caused him to hide in terror. His mother believed that Robert's fear was related to a close physical resemblance in size, hairstyle, and facial features between the workman and his birth father. While terrifying feelings about his birth father clearly persisted, his continued intense wishes to avoid discussion made it difficult to know the exact nature of any persisting internal imagery.

case 5: stephanie

This case involves a child who broke her leg at fifteen months. Eleven months later a minor fall appeared to stimulate the reexperiencing of memories and feelings about the previous injury and associated treatments. Occurring at the time of developing genital awareness, this reexperiencing appeared to complicate her understanding of gender differences. I did not see this child personally but reviewed her extensive medical records as part of a legal process.

At age fifteen months, under unknown circumstances, Stephanie suffered a spiral fracture

of the femur at a babysitter's house. The babysitter denied knowing how the injury had occurred. The fracture required a very painful, ten-day hospitalization in traction followed by a six-week immobilization at home in a full-body cast. The recovery period was characterized by repeated painful manipulations, muscle spasms requiring analgesic injections, and numerous sores over friction areas.

Symptoms documented in the records included disrupted sleep with frequent distress awakenings, fear of sleeping in her crib (where presumably the injury had occurred), panic at having her leg touched, and intense fear of male strangers, particularly during visits to the doctor's

office (the doctors and physical therapists manipulating her leg had all been male). She also exhibited separation distress, startle distress reactions to loud noises and sudden movements, avoidance of physical positions which had been associated with pain, and emotional detachment punctuated with frequent temper outbursts. Over the next ten months her symptoms abated, although she consistently showed a resurgence of sleep difficulties immediately following checkup visits with her orthopedist.

Most compelling from a memory standpoint was Stephanie's reaction to a mild fall from a low stool eleven months after her original injury. Although unhurt, she immediately grabbed her leg, screaming, "My leg, my leg!" Her parents had commented that the fall must have jarred her memory, because for the first time she began to talk about being in the hospital and getting shots. There was a marked resurgence in her symptoms, including nightmares, fear of men, and repetitive play involving breaking the legs of all her dolls. She began walking around the house with her leg stiff, as she had walked right after the injury. These behaviors and the verbalization of her memories continued over the next several months and, interestingly, were accompanied by a significant improvement in her spontaneity and capacity for pleasure.

Stephanie entered therapy four months after her injury because of her posttraumatic symptoms and the stress they were placing on her parents. Unfortunately, her medical treatments were never discussed in the therapy. During the initial work-up, her very anxious parents were concerned about possible sexual abuse because of occasional touching of her vaginal area during diaper changes, and so the therapist had introduced anatomically correct dolls. Stephanie initially showed very little interest in the anatomical dolls. Six months later, at twenty-five months of age, after the birth of a baby sister and in the midst of her own toilet training, in her play Stephanie began to show age-expectable

interest in issues of gender identity and genital awareness (**Roiphe, 1968**; **Galenson and Roiphe 1971; Fagot and Leinbach, 1985**). Her play at this time had what appeared to be a developmentally appropriate exploratory quality, such as undressing the anatomically correct dolls and examining the genitalia (particularly of the male doll) and play involving baths, bedtime, diaper changes, and going to the toilet (with the male dolls sitting on the toilet as the female dolls did).

After the fall from the stool at twenty-seven months, therapeutic notes documented a dramatic change in the character of her exploratory sexual play. Beginning with the first therapy session following her injury, in each of the next nine sessions she compulsively carried out a

play sequence which involved tearing the leg off a doll, followed by undressing and aggressively grabbing the penis of the male doll. While sexual exploratory play continued, in contrast to the quiet curiosity which accompanied the earlier exploratory play, at this time it was accompanied by a great deal of anxiety. It was my interpretation that the heightened anxious preoccupation with her previously injured leg stimulated by her recent minor fall, combined with her developmentally prompted awareness of her lack of a penis, had caused her to conclude that she had lost her [male] genitalia as a result of her injury and treatments.

Discussion

While each of the five cases has its unique aspects, I believe there is enough commonality to support tentative conclusions about the symptomatology, degree of memory, and enduring developmental effects of traumatic experiences occurring in the preverbal period.

The case material extends our understanding of the symptomatic effects of trauma in infancy. Not only do toddlers who have reached verbal fluency exhibit posttraumatic symptomatology similar in nature to that manifested by older children and adults (**Drell et al., 1993**; **Scheeringa et al., in press**), but it appears that such symptomatology can be observed in infants who have not achieved a level of language beyond isolated words. In the current diagnostic nomenclature, three major categories of response have been delineated for the diagnosis of posttraumatic stress disorder in children: (1) persistent reexperiencing of the trauma through intrusive recollections, nightmares, reenactment behavior, and/or emotional reliving when exposed to stimuli reminiscent of the trauma; (2) persistent avoidance of stimuli associated with the trauma and numbing of general

responsiveness, manifested by a restricted range of affect, social withdrawal, and loss of interest in usual activities; and (3) persistent symptoms of increased arousal manifested by startle reactions, irritability, and sleep difficulties (DSM-IV, 1994). In the posttrauma period the infants showed multiple symptoms from every one of these categories. As would be expected from clinical experience with older children, the severity of the immediate posttraumatic reactions was correlated with the severity of the trauma: Tommy's symptoms were minor in comparison with Audrey's and Robert's quite severe reactions (**Bloch et al., 1956**; Pynoos et al., 1987).

The children not only demonstrated posttraumatic symptoms with a high degree of specificity but also showed evidence of retention of

central elements of their traumatic experience over extended periods of time, as manifested in their various reenactments and associated communications. Such observations, if replicated, have important implications for our understanding of the nature of memory capacity in the preverbal period. The case examples support Terr's observations that memories of trauma are "burned in" to the brain in powerful ways. While visual memory appeared to be pivotal, as Terr has hypothesized, the children's symptoms and manner of communication suggested that the memories were not simply visual or photographic images of a fragment of the experience. Rather, within the bounds of the children's capacities to perceive, the representations appeared to involve multiple sensory modalities (visual, auditory, tactile, kinesthetic, and vestibular), a sense of temporal sequence, and compelling affective meaning.

The manner in which the memories were expressed would for the most part fit into the category of implicit or procedural memory, memories which are encoded automatically and expressed through images, behaviors, or emotions without conscious awareness. At the same time, the memory capacities exhibited did not appear to be completely encompassed within the boundaries of implicit memory but had characteristics associated with explicit, or declarative, memory as well. As noted, definitions of autobiographical memory have been limited by the emphasis on verbal communication. If autobiographical memory is defined as the capacity to describe personal events from the past, the purposeful way in which the children engaged in the play reenactments conveyed the strong impression that they were communicating what they felt had happened to them personally. In addition, in the children's communications, there did not appear to be an absolute disjuncture between nonverbal and verbal modes. As words became available, each of the children was able to superimpose verbal description on the

nonverbal representations in ways which facilitated understanding and communication of the experience: Tommy in his exclamations of “Bad medicine” and “Daddy!” and his later description of “barfing,” Beth in her warnings about trucks and reference to the car in the river, Audrey in various descriptions of her memories and intrusive images, and Stephanie in her ability to talk about the hospital and shots. Perhaps the most dramatic instance of verbal superimposition on nonverbal experience was the case of Robert, who, strikingly, appeared to have integrated verbalizations into the traumatic experience itself. The overlapping of features characteristic of both implicit and explicit memory would suggest that, developmentally at least, these two systems are not completely separate (**Mandler, 1990**).

Given current debate about the validity of early memories of trauma

and the role of therapists in influencing the patient’s memories, the manner in which these early memories were elicited is of great importance. I have tried to provide sufficient detail to allow readers to develop their own opinions regarding the context in which these memories emerged and the degree to which they were influenced by me or others. Children are able to convey their knowledge more effectively if they are allowed to communicate in both verbal and nonverbal ways (**Mandler, 1990**), and if cues are provided (**Fivush, 1993**). Cues may be purposeful, as in the provision of structured play settings (**Levy, 1939**), or accidental, as in the case of Robert’s seeing an infant in the waiting room prior to his session. Providing appropriate cues is obviously a difficult task, fraught with the potential for leading the child. With the infants I worked with directly I attempted to provide cues, either in words or through structured situations, that created a general context within the bounds of what I knew about the trauma. I then encouraged the child to communicate what he or she knew from there, hopefully without the child feeling pressured. Questions about how actively to structure the therapeutic situation to help patients reexperience a trauma in the service of resolution are complicated and currently the subject of much controversy. I have recently discussed some of these issues as they pertain to therapeutic work with very young traumatized children (**Gaensbauer, 1994**).

Do traumatic memories operate according to different principles than ordinary memory? The markedly heightened tendency for traumatic memories to be retained has been well documented. The reasons for this are not understood, but may relate to the massive mobilization of stress-responsive neurohormones and neuroregulators occurring at the time of a traumatic event, in turn resulting in an overconsolidation of memory traces in a process termed “superconditioning” (Pitman, **1988**, **1989**). Based on these cases, it

seems tenable to hypothesize that the neural substrates necessary for such "superconditioning" are present by seven to nine months of age. It is also likely that the physical nature of the traumas has contributed to the degree of retention seen in these cases. A most striking example of the permanence with which early experiences involving physical sensations of bodily injury can be encoded was reported to me by a colleague and his wife in an anecdote about their son. After his birth, he had required repeated heel pricks to monitor his bilirubin level to the point where his heels were macerated and raw. At age twenty-three, while talking with his parents about working under deadlines he commented with puzzlement, "Whenever I get really stressed, my heels ache!" At this point in time we do not know if

memories for nonphysical trauma or for more ordinary experiences have the potential to be encoded with the same degree of permanence.

The fate of these early memories over time is also an important topic, particularly given current controversies about the reliability of reports of childhood trauma. As psychoanalysts have long understood (**Freud, 1899**; **Kris, 1956**), and as Terr (1988) has recently documented, memories of early experiences will undergo a variety of alterations over the course of development. Memories are not fixed in stone, but are reflections of a dynamic process, continuously subject to modification by both internal and external influences (**Loftus, 1979**). For the purposes of this paper I have emphasized the retention of core sensory and somatically based representations over time. Yet in each of the cases one can easily observe ways in which the children's internal representations have been expanded and modified, sometimes in the direction of increased organization and narrative coherence and sometimes in the direction of distortion and disorganization. Perhaps the most emotionally charged distortion incorporated into a traumatic reenactment was Robert's condensation of the traumatic experiences with his father and the frightening visits with his mother, where he reenacted that the woman Barbara protected him in both instances. One could also see illustrations of how early experiences are reworked at each developmental level and how subsequently gained knowledge can result in new interpretations carrying with them new forms of anxiety. Examples would be Stephanie's reinterpretation of the nature of her trauma in light of her new understanding about genital differences, and Audrey's increased anxiety during her Oedipal phase as she came to understand the nature of the relationship between her birth mother and the ex-boyfriend and developed the fantasy that the ex-boyfriend was her father.

It was my impression that the reenactments and verbalizations of the younger children

had more direct connections in affect and content to the original experiences. As the children became older, their advanced cognitive development and increased defensiveness, and the influence of what they had been told made it difficult to know the extent to which they remained in touch with the original memories. Given the well-documented finding that most adolescents and adults do not have memories of their childhood prior to the ages of three (**Freud, 1899**; **Pillemer and White, 1989**), it is likely that specific memories of these early traumatic events will eventually be lost to conscious awareness, as they were in the case of Tommy by the age of seven.

Regardless of the fate of the actual memories, the traumatic experiences

described here appear to have had significant and enduring detrimental effects on the children's development, not just in the form of posttraumatic symptoms, but in the ways they have interfered with the resolution of important developmental issues. These include interference not only in the accomplishment of developmental tasks relevant to the developmental period in which the trauma occurred—such as effects on physiological regulation, the children's basic sense of trust, and the development of their primary attachments—but in subsequent developmental issues as well, such as separation-individuation, the development of a sense of autonomy, and the regulation of aggression (**Gaensbauer, 1994**). Children who have experienced significant early physical traumas may be particularly vulnerable to disturbances in the areas of gender identity, the sense of bodily integrity, and Oedipalphase development, as illustrated by the cases of Audrey, Robert, and Stephanie (**Bloch, 1978**; **Coates, 1985**; **Meyer and Dupkin, 1985**).

I believe the observations provide examples of the multiple ways in which preverbal traumas might "enter into the determination of evolving structure and function" (**Meissner, 1989**) in detrimental ways. In contrast to the presumption that such experiences are prerepresentational and "antedating the advent of conscious awareness," the observations suggest that memories in the preverbal period are neither prerepresentational in any absolute sense nor unavailable to conscious awareness. The children appeared not only able to develop internal representations of their traumas, but seemed capable of transforming and expressing these representations in symbolic terms. The dreams, play enactments, drawings, and thematic preoccupations of the children for whom follow-up material was available gave evidence of carryover of specific aspects of their traumas into metaphorical and symbolic forms. Evidence of such carry-over provides confirmatory data in regard to the multiple ways in which infantile experiences may be manifested at older ages, as documented in the psychoanalytic literature referenced

earlier. At every age, traumatic memories and their associated affects can become powerful organizing elements within the psyche, coloring every aspect of a person's psychological functioning (**Phillips, 1992**). The more we can understand about the degree of representational organization available during the first eighteen months of life, the better we will understand the mechanisms by which long-term effects of early trauma may be produced.

In summary, the cases presented here suggest that capacities for the registration of meaningful internal representations of trauma and enduring trauma-specific symptomatology are present as early as the second half of the first year of life and do not depend on the achievement

of language fluency. The developmental implications of early trauma, particularly if severe, appear to be profound. It is my hope that the clinical material will heighten awareness of the potential impacts of trauma in the preverbal period, perhaps contributing to a shift of focus back in the direction of Freud's early interests.

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